

1 **ABSTRACT OF THE DISCLOSURE**

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3 An electric welder for spot fusing a eutectic solder matching a thin film
4 deposition on an electrically non-conductive substrate. An example being a gold-tin
5 solder fusing to a gold plated ceramic or glass surface. At least one pair of laterally
6 displaced electrodes is resiliently engaged with the surface of the eutectic. The
7 electrodes are tapered at the terminus to restrict the area of current flow. The
8 engaging tip of the electrode is rounded tangentially to the taper and very slightly
9 penetrates the surface of the eutectic. Once engaged the electrode pair is pulsed
10 with sufficient current, from for example a capacitor discharge circuit, to create a
11 local heat cone at the contact point sufficient to reach the eutectic point thereby
12 locally fusing the eutectic to the plating.